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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/700,151 | 11/03/2003 | Hamid Namaky | 19325/04063 | 3831 |
| 30734 | 7590 | 08/30/2005 | EXAMINER | |
| TRIEU, VAN THANH | | | | |
| ART UNIT | | PAPER NUMBER | | |
| 2636 | | | | |

DATE MAILED: 08/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|------------------------|---------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/700,151 | NAMAKY ET AL. |
| | Examiner | Art Unit |
| | Van T Trieu | 2636 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 02 June 2005.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-38 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) Claim(s) _____ is/are allowed.
6) Claim(s) 1-38 is/are rejected.
7) Claim(s) _____ is/are objected to.
8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____

DETAILED ACTION

Claim Objections

1. Claim 3 is objected to because of the following informalities: the abbreviation "OBD" should be spell out. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 4, 10-12, 15-17, 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by **Tomson** [US 6,871,121].

Regarding claim 1, the claimed an automotive device for displaying vehicle parameters that are transmitted via a vehicle data bus, comprising: a display (the vehicle data are transmitted to a display 14, via a visualization computer system 12 and OBD II connector 13 or 16, see Figs. 1 and 2, col. 2, lines 23-43); and the connector for releasably and directly connecting to a vehicle data bus (the ODB II connector is directly connected to a vehicle data bus, see Fig. 1, col. 3, lines 37-42 and 65-67); and the processor in circuit communication with the display and the connector (the visualization processor 12, see Figs. 1 and 2, col. 3, lines 32-42, col. 4, lines 19-67, cols. 5-7 and col. 8, lines 1-57, lines 1-); and the mounting device secured to the display, wherein the

mounting device is configured to facilitate securing the display to a vehicle (the display 12 is mounted in or on the vehicle, see Fig. 3, col. 3, lines 2-3 and col. 9, line 11-12).

Regarding claim 2, all the claimed subject matters are cited in respect to claim 1 above, and including the communication circuit (the data acquisition processor 23, see Fig. 2, col. 4, lines 55-61).

Regarding claim 3, the claimed OPD II connector, see Fig. 1.

Regarding claim 4, all the claimed subject matters are cited in respect to claim 1 above, and including the analog gauges 14, see Fig. 3, col. 9, line 18.

Regarding claim 6, the claimed digital display (the LCD display 14, see col. 3, lines 2).

Regarding claim 7, the claimed graphical display (the LCD display 14, see col. 13-21).

Regarding claim 8, the claimed LCD display (the LCD display 14, see Fig. 1).

Regarding claim 14, the claimed fuel economy parameter, see col. 4, lines 59.

Regarding claim 15, the claimed temperature meter, see col. 4, lines 58-59 and col. 7, lines 30-33.

Regarding claim 16, all the claimed limitations are met by the subject matters cited in respect to apparatus claim 1 above.

Regarding claim 17, the claimed connector means comprising a connector plugged into the vehicle data bus (the OBD II connector is connected/plugged into the automobile data bus, see Fig. 1, col. 3, lines 37-39 and 65-57)

Regarding claim 18, all the claimed subject matters are cited in respect to claim 17 above, see Fig. 1, col. 3, lines 37-65.

Regarding claim 19, the claimed selecting one or more vehicle parameters to be displayed on the one or more instruments (the data acquisition processor 23, see Figs. 2, col. 4, lines 55-67, cols. 5-7 and col. 8, lines 1-57).

Regarding claim 20, the claimed means for mounting the display means outside of factory installed instrument panel in the vehicle (the LCD display 14 can be mounted elsewhere in the interior of the vehicle, see col. 3, lines 4-13).

Regarding claim 21, the method claimed limitations are met by the apparatus claims 1 and 20 above, and including the diagnostic, see abstract, col. 4, lines 38-67, cols. 5-7 and col. 8, lines 1-57.

Regarding claim 22, the claimed processor and the communication circuit are integral (the acquisition processor 23 and visualization process 24 and executive process 22 are a vehicle integral computer system, see Fig. 2, col. 2, lines 5-16 and col. 4, lines 19-37).

Regarding claim 23, all the claimed subject matters are cited in respect to claims 3 and 21 above.

Regarding claim 24, all the claimed subject matters are cited in respect to claims 4 and 21 above.

Regarding claim 27, all the claimed subject matters are cited in respect to claims 6 and 21 above.

Regarding claim 28, all the claimed subject matters are cited in respect to claims 7 and 21 above.

Regarding claim 30, the claimed displays an engine revolutions per minute parameter, see col. 7, lines 24-33.

Regarding claim 35, all the claimed subject matters are cited in respect to claims 14 and 21 above.

Regarding claim 36, all the claimed subject matters are cited in respect to claims 15 and 21 above.

Regarding claim 37, all the claimed subject matters are cited in respect to claims 20 and 21 above.

Regarding claim 38, all the claimed subject matters are cited in respect to claims 3 and 37 above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 5, 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Tomson** [US 6,871,121] in view of **Beckert et al** [US 6,175,789].

Regarding claim 5, **Tomson** fails to disclose the D/A conversion circuit in circuit communication with the processor for driving the one or more analog gauges.

However, **Tomson** teaches that the vehicle computer 15 receives signals from a various sensors 15a, which sense operation of the vehicle and provides sensed signals such as vehicle speed, engine RPM, air intake temperature, manifold pressure, coolant temperature, fuel pressure, and throttle position to the vehicle computer 15 or ECU and to the visualization computer system 12 for displaying of those sensed parameters, see Figs. 1 and 2, col. 4, lines 41-61. **Beckert et al** suggests that a vehicle computer system 22 runs multiple applications on the operating system including both vehicle related applications such as vehicle security application, vehicle diagnostic application, communication applications, etc. The computer 22 is connected to a support module 62 via a multi-bit-bus 66 or USB 70. The support module 62 includes audio signal processor 96, AM/FM tuner model 98, GPS 100 and one or more audio analog-to-digital converters and digital-to-analog converters or CODECS 102, see Figs. 1-3, 6 and 7, col. 2, lines 43-49, col. 5, lines 16-20 and col. 6, lines 6-20. Therefore, it would have been obvious to one skill in the art at the time the invention was made to implement the CODECS of **Beckert et al** to the vehicle computer of **Hein et al** for converting of both

analog and digital signals received from various sensors since the vehicle data communications includes transmission of analog and digital data.

Regarding claim 25, all the claimed subject matters are discussed between **Tomson** and **Beckert et al** in respect to claims 5 and 21 above.

Regarding claim 26, all the claimed subject matters are discussed between **Tomson** and **Beckert et al** in respect to claim 25 above.

4. Claim 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Tomson** [US 6,871,121] in view of **Kubota et al** [US 6,401,029].

Regarding claim 9, **Tomson** fails to disclose the display comprises a plasma display. However, **Tomson** teaches that the LCD display 14 for displaying of vehicle sensed parameters such as vehicle speed, engine RPM, air intake temperature, manifold pressure, coolant temperature, fuel pressure, and throttle position in both alphanumerical and graphical data, see Figs. 1 and 2, col. 4, lines 41-61. **Kubota et al** suggests that a display 27 in the vehicle interior may be a CRT display, a LCD, a plasma display or a hologram device for displaying of vehicle condition, time, date, position and environmental condition surrounding the vehicle, see Figs. 1, 4 and 5, col. 5, lines 20-32 and col. 8 lines 10-13. Therefore, it would have been obvious to one skill in the art at the time the invention was made to substitute the plasma display of **Kubota**

et al for the LCD display of **Tomson** since the plasma is a thinner display for mounted to any constrain space, such as the vehicle dashboard.

5. Claims 10, 11, 29 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Tomson** [US 6,871,121] in view of **Hein et al** [US 6,441,510]. Regarding claim 10, **Tomson** fails to disclose the displaying a tachometer parameter. However, **Tomson** teaches that the LCD display 14 for displaying of vehicle sensed parameters such as vehicle speed, engine RPM, air intake temperature, manifold pressure, coolant temperature, fuel pressure, and throttle position in both alphanumerical and graphical data, see Figs. 1 and 2, col. 4, lines 41-61. **Hein et al** suggests that the vehicle instrument panel includes a multi-controller 100 connected to an instrument cluster 36, which is connected to a speedometer, tachometer, fuel, oil pressure, temperature gauge, see Figs. 1 and 3, col. 4, lines 1-13. Therefore, it would have been obvious to one skill in the art at the time the invention was made to implement the tachometer display of **Hein et al** to the LCD display of **Tomson** for monitoring engine performance and saving fuel.

Regarding claim 11, **Tomson** fails to disclose the displaying a oil pressure parameter. However, **Tomson** teaches that the LCD display 14 for displaying of vehicle sensed parameters such as vehicle speed, engine RPM, air intake temperature, manifold pressure, coolant temperature, fuel pressure, and throttle position in both alphanumerical and graphical data, see Figs. 1 and 2, col. 4, lines 41-61. **Hein et al**

suggests that the vehicle instrument panel includes a multi-controller 100 connected to an instrument cluster 36, which is connected to a speedometer, tachometer, fuel, oil pressure, temperature gauge, see Figs. 1 and 3, col. 4, lines 1-13. Therefore, it would have been obvious to one skill in the art at the time the invention was made to implement the oil pressure display of **Hein et al** to the LCD display of **Tomson** for monitoring oil pressure of engine performance and saving fuel.

Regarding claim 29, all the claimed subject matters are discussed between **Tomson** and **Hein et al** in respect to claims 10 and 21 above.

Regarding claim 32, all the claimed subject matters are discussed between **Tomson** and **Hein et al** in respect to claims 11 and 21 above.

Claims 12, 13, 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Tomson** [US 6,871,121] in view of **Austin** [US 5,309,139].

Regarding claim 12, **Tomson** fails to disclose the displaying a horsepower parameter. However, **Tomson** teaches that the LCD display 14 for displaying of vehicle sensed parameters such as vehicle speed, engine RPM, air intake temperature, manifold pressure, coolant temperature, fuel pressure, and throttle position in both alphanumerical and graphical data, see Figs. 1 and 2, col. 4, lines 41-61. **Austin** suggests that a novel system for monitoring a plurality functions and conditions of a vehicle and provided a graphic presentation and recordation of torque and horsepower.

All information is reported live and updated by the onboard graphic computer 46. The live information digitally displayed torque and RPM and horsepower, see Figs. 1-3, abstract, col. 2, lines 40-60, col. 3, lines 9-67, col. 4, lines 1-37 and col. 5, lines 60-66. Therefore, it would have been obvious to one skill in the art at the time the invention was made to implement the horsepower display of **Austin** to the LCD display of **Tomson** for monitoring the factors contributed to or depreciating a vehicle's performance to a driver or operator.

Regarding claim 13, **Tomson** fails to disclose the displaying a torque parameter. However, **Tomson** teaches that the LCD display 14 for displaying of vehicle sensed parameters such as vehicle speed, engine RPM, air intake temperature, manifold pressure, coolant temperature, fuel pressure, and throttle position in both alphanumerical and graphical data, see Figs. 1 and 2, col. 4, lines 41-61. **Austin** suggests that a novel system for monitoring a plurality functions and conditions of a vehicle and provided a graphic presentation and recordation of torque and horsepower. All information is reported live and updated by the onboard graphic computer 46. The live information digitally displayed torque and RPM and horsepower, see Figs. 1-3, abstract, col. 2, lines 40-60, col. 3, lines 9-67, col. 4, lines 1-37 and col. 5, lines 60-66. Therefore, it would have been obvious to one skill in the art at the time the invention was made to implement the torque display of **Austin** to the CD display of **Tomson** for generating an accurate profile of the duty cycle for an engine/vehicle combination that can be used to monitor engine performance and saving fuel.

Regarding claim 33, all the claimed subject matters are discussed between **Hein et al** and **Austin** in respect to claims 12 and 21 above.

Regarding claim 34, all the claimed subject matters are discussed between **Hein et al** and **Austin** in respect to claims 13 and 21 above.

6. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Tomson** [US 6,871,121] in view of **Hayashi et al** [US 6,781,512].

Regarding claim 31, **Tomson** fails to disclose the display an indication to the driver to shift gears. However, **Tomson** teaches that the LCD display 14 for displaying of vehicle sensed parameters such as vehicle speed, engine RPM, air intake temperature, manifold pressure, coolant temperature, fuel pressure, and throttle position in both alphanumerical and graphical data, see Figs. 1 and 2, col. 4, lines 41-61. **Hayashi et al** suggests that a controller 307 is coupled to a multiple RPM display 311 and gear shift display 313. The display can be of any suitable type such as a CRT screen, an LED screen, a LCD screen, an analog or digital meter or gauge, see Figs. 1-4, col. 2, lines 29-67, col. 3, lines 1-64, col. 4, lines 35-67 and col. 6, lines 14-42. Therefore, it would have been obvious to one skill in the art at the time the invention was made to implement the shift gear display of **Hayashi et al** to the LCD display of **Tomson** for the driver changing gear smoother and to save the fuel.

Response to Arguments

7. Applicant's arguments filed on 02 June 2005 have been fully considered but they are not persuasive. Examiner is regrettably to generate a new office action based on the Amendment and the update search, wherein a new reference of **Tomson** provides a OBD II connector for directly connecting to the vehicle data bus and to the visualization computer for displaying of vehicle operation data parameters.

The claim objection filed in the First Office Action has not been addressed or corrected in the Amendment.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Gumbel discloses a controller area network diagnostic instrumental for diagnosis and evaluation of electronic components on a vehicle control system, comprising a processor with a graphic display. The processor has a cable to plug into the diagnostic connector engaged to a common vehicle data bus. [US 6,393,379]

9. Any inquiry concerning this communication or earlier communications from examiner should be directed to primary examiner **Van Trieu** whose telephone number is (571) 272-2972. The examiner can normally be reached on Mon-Fri from 7:00 AM to 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. **Jeffery Hofsass** can be reached on (571) 272-2981.

A handwritten signature in black ink, appearing to read "Van Trieu".

Van Trieu
Primary Examiner
Date: 8/23/05